



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/888,656	06/26/2001	Atsushi Oohashi	Q64995	9112

7590 12/02/2003

SUGHRUE, MION, ZINN, MACPEAK & SEAS
2100 Pennsylvania Avenue, N.W.
Washington, DC 20037

EXAMINER

GONZALEZ, JULIO C

ART UNIT	PAPER NUMBER
----------	--------------

2834

DATE MAILED: 12/02/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/888,656

Applicant(s)

OOHASHI ET AL.

Examiner

Julio C. Gonzalez

Art Unit

2834

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 and 14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 and 14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other:

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kusase et al in view of Honda (JP 359123438A).

Kusase et al discloses stator for a dynamo electric machine having a stator core (see figure 4) and the stator winding having a plurality of conductors 33.

Moreover, Kusase et al discloses that the conductors 33 are made of copper (column 3, lines 32, 33) and that the conductors may soldered by using soft solder as a molten metal (column 6, lines 12, 13), which inherently has a lower melting point than copper (material of conductor).

Although it is well known in the art that soft solder has a lower melting point than copper, Honda discloses for the purpose of avoiding generation of cracking in rotor windings, that conductor made of copper may be connected to other parts of windings 8a by using silver soldering (see Constitution), which has a lower melting point.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to design a stator winding for a generator as disclosed by Kusase et al and using silver as a molten metal for connecting copper conductors for the purpose of avoiding generation of cracking in rotor windings for the purpose of avoiding generation of cracking in rotor windings as disclosed by Honda.

3. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kusase et al and Honda as applied to claim 1 above, and further in view of Baines.

The combined stator winding discloses all of the elements above. However, the combined stator winding does not disclose using an alloy for a molten metal.

On the other hand, Baines discloses for the purpose of making an efficient connection of a lead wire to a motor contact that it is well known in the art to use copper or a copper alloy as a molten metal (column 1, lines 15-18).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to design the combined stator winding as disclosed above and to use a molten metal alloy for the purpose of making an efficient connection of a lead wire to a motor contact as disclosed by Baines.

4. Claims 4 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kusase et al, Honda and Baines as applied to claims 1 and 2 above, and further in view of Seki et al.

The combined stator winding discloses all of the elements above. However, the combined stator winding does not disclose explicitly using silver alloy or tin alloy as a molten metal.

Although it is well known in the art to use silver and tin as a soldering metal, Seki et al has provided to show that such use of metals, tin and silver and their alloys, are generally used as a molten metal for soldering. Seki et al discloses for the purpose of avoiding reduction in the bonding strength, thus ensuring a proper motor function that silver, tin and their alloys may be used as solder metals (column 4, lines 31-41).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to design the combined stator winding as disclosed above and to use tin and silver as solder metals for the purpose of avoiding reduction in the bonding strength, thus ensuring a proper motor function as disclosed by Seki et al.

5. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kusase et al and Honda as applied to claim 1 above, and further in view of Hashida (JP 362015810A).

The combined stator winding discloses all of the elements above. However, the combined stator winding does not disclose explicitly having molten metal between conductors.

On the other hand, Hashida discloses for the purpose of ensuring a connection of a covered electric wire to a terminal without worry for wire breakdown that a molten metal 6 (tin or solder) may be in between 2a and 2b (see figure 2).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to design the combined stator winding as disclosed above and to place a soldered metal between two terminals pieces for the purpose of ensuring a connection of a covered electric wire to a terminal without worry for wire breakdown as disclosed by Hashida.

6. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kusase et al, Honda and Baines as applied to claim 2 above.

The combined stator discloses all of the elements above. However, the combined stator does not disclose using the material for the additive metal.

It would have been obvious to use the material use for the additive metal (Cu-P), since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. In *re Leshin*, 125 USPQ 416.

Response to Arguments

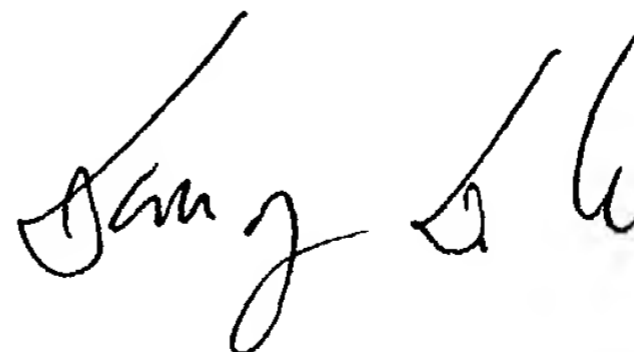
7. Applicant's arguments filed 10/10/03 have been fully considered but are moot in view of new grounds of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Julio C. Gonzalez whose telephone number is (703) 305-1563. The examiner can normally be reached on M-F (8AM-5PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nestor Ramirez can be reached on (703) 308-1371. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7722 for regular communications and (703) 308-7722 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.



Jcg

November 18, 2003

DANGLE
PRIMARY EXAMINER